RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

Mr. Frank C. Kresse, Agent	El Contro
HARDING LAWSON ASSOCIATES	El Centro Calif February 10, 1986
5735 Davis Circle	repruary 10, 1900
Rohnert Park, CA 94928	
Your operations at well	API No. 065-90012
Your operations at well	Field, inRiversideCounty
Sec. 29, T.2S, R5E, S.B.B.& M. — were witnessed on	D Corhaley representative of
the supervisor, was present from 1300 to 1600	There were also present
the supervisor, was present from 1300 to 1000	. There were also present
R. Skinner, Geologist for Harding Lawson	2 Clm (1071) - 7 20cm (2-7/8") ccm
Present condition of well: 17.78cm (7") cem. 3	2.01111 (10/); 7.30011 (2-/) 0 / CBIL.
396.2m (1300'). T.D. 396.2m (1300'). Plu	agged w/cell. 22.60m (/3) - 1.60m (0 /.
The operations were performed for the purpose of _wi	tnessing the plugging/cementing operations
in the process of abandonment.	
DECISION:	·
APPROVED	
NO DEFICIENCIES	
CONTRACTOR - HARDING LAWSON ASSOCIATES	

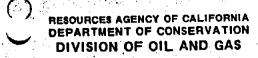


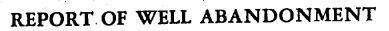
DIVISION CF CIL & GAS SACRAMENTO

cc: Sacramento Geothermal Unit

By Deputy Supervisor
Richard E. Corbaley

OG109(12-80-15M)





		El Cent	ro	., California
			y 10, 1986	
Mr. Frank C. Kresse, Ager	nt	•		
HARDING LAWSON ASSOCIATES	m aves 24 hotesas.	•		
5735 Davis Circle Rohnert Park, CA 94928	.don en em 100 100 100 100 100 100 100 100 100 10		•	
		& DHS-	3	
Your report of abandonment of well		(Name and numb		D 9. M
A.P.I. No, S				
	i	eld, <u>Riv</u>	erside	County
dated1/27/86	_, received	2/4/86		has beer
the requirements of this Division hav			•	
DHS-3 - 065-90012 Sec.	29		•	•
			DEGE D FEB 2	1 V E [4 1396
			DIVISION C SACRA	FICIL & GAS
		M.G. MEFFE	RD Gas Supervisor	. Ls
	By 7	Richard Z		L

No. P G286-1

DISTRICT G - 1

REPORT ON PROPOSED GEOTHERMAL OPERATIONS

Mr. Frank C. Kresse, Agent HARDING LAWSON ASSOCIATES 5735 Davis Circle Rohnert Park, CA 94928	- - -	El Centro Jan. 3, 1986	, California
Yourproposal toAbandon		well *	
API No. * , Section * , T.	* R. *	, S.B. B. & M., -	field
	ermal Resource Area,		County
dated 11/22/85, received 12/2/85	has been ex	carnined in conjunction with reco	rds filed in this office
	065-96010		
DHS-2 Sec. 32, T. 2S, R. 5E	065-90012		
THE PROPOSAL, COVERING WORK ALR	EADY COMPLETED UND	ER PRIOR AGREEMENT, IS	APPROVED.

DIVISION CT COLLA GAS SACEA MENTO

M. G. MEFFERD, State Oil and Cas Supervisor

(Signature)

Sacramento Geothermal Unit

Richard E. Corbaley
A copy of this report and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after completion, suspension, or abandonment.

API No. 065-90012

NOTICE OF INTENTION TO ABANDON GEOTHERMAL WELL

Submitted in Compliance with Section 3724, Division 3, Chapter 4, Public Resources Code

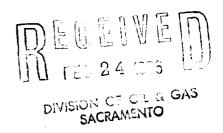
Operator Harding Lawson Associates	Well Designation (INTERMEDIATE)							
Field/GRA		County Rivers	ide	Sec. 29	T. 2S	R. 5E	8. & M. SB	
Name (<i>Person submitting report - print or type)</i> Frank C. Kresse		Street Address 7655 R	edwood Blvd.					
Title Agent or officer of company! Principal Geologist	City	ato	State Cal	ifornia	1	Zip Coo 94	le 947	
Signature: Frank C. Knisse		Date: 11/22	185- TO	elephone I	Number:_	415/8	92-0821	
The present condition of the well is as follows: 1. Total depth: 396.2 meters 2. Base of freshwater aquifer: me 3. Last produced: , 19	eters		raphic markers and uvium	d depths (in meters):		
(Production in kg/hr., gal./min.) 4. Results of initial production test: (includes fluid(Kg/hr., gal./min.) rate(Bars, psi) pressure								
 5. Bottom hole temperature: 58 ° C 6. Maximum temperature: 58 ° C, dept 	th: 396 (meters)	8. Forma	ation and age at to	tal depth:	Quater	nary A	lluvium	

Complete casing record, including plugs:

	Top of casing	Depth of shee (m)						Varune at Death of comenting if coment (miles through perforations (miles through perforations (miles through perforations))
17.78	Surface	32.6	10.41	N	S	ST&C !	21.59	0.39
7.30	Surface	396.2	2.94	S	S	J55 EUE	15.56	5.87

To fulfill the abandonment requirements of the division, the following work is proposed:

- 1. Place cement plug in approximately upper 50 feet of hole.
- 2. Cut off casing and tubing 6 feet below surface.
- 3. Backfill site.



At the state of th

DIVISION OF OIL AND GAS

Report on Operations

Mr. Frank C. Kresse, Agent	_			
HARDING LAWSON ASSOCIATES	_		El Centro	Calif.
5735 Davis Circle			May 20, 1985	
Rohnert Park, CA 94928				•
Your operations at well	EDIATE)	, API No	065-90012	Complex
Sec. 29 , T.2S, R.5E , S.B. B.& M		Field, in	Riverside	County,
were witnessed on 5/10/85	1200	<u>quita</u>	· · · · · · · · · · · · · · · · · · ·	representative of
the supervisor, was present from		Inere wer	e also present	
R. Skinner, Geologist Harding Lawson Present condition of well: 17.78cm (7") cer	n 22 6m /	107!) m D	3/ 13m (1121)	Drilling
Present condition of well:	IL JZ OIII L	TO TOTAL	74017111 (777	
			`	
The operations were performed for the purpose of	Testin	g the blowd	out prevention	equipment.
DECISION:				
APPROVED:				
NO DEFICIENCIES				·
CONTRACTOR: H & W Drilling				
REC: jb				•
cc: Sacramento Geothermal Unit				
		الس ال	CFIVE	

DIVISION OF OIL & GAS SACRAMENTO

By Jane Of and Car Supergror,
Deputy Supervisor

Richard E. Corbaley

OG109(12-80-15M)

1 7 -	PG285-12	
INO.	PGZ0J=12	

DISTRICT G - 2

REPORT ON PROPOSED GEOTHERMAL OPERATIONS

	ARDING LAWSON ASSOCIATE		-			7	(1.1)
	735 Davis Circle		-			HICE	<u>ntro</u> , California 30, 1985
R	ohnert Park, CA 94928		RMEDIA			•	
Your_	proposal to		observati		well	program	
	o * , Section_	, T	<u> 25</u> ,	R. <u>5E</u>			fiel
							Count
dated_	4/24/85 , received 4/	26/85		_has been e	xamined i	n conjunction	with records filed in this offic
* W	ells covered under this	progra	m are:				
D	HS-1 (065-90010), Sec.	32. T.	2S., R.	5E.			
	HS-2 (065-90011), Sec.	3 3 , T.	2S., R.	5E.			
	HS-3 (065-90012), Sec.						
	HS-4 (065-90013), Sec.						
D	HS-5 (065-90014), Sec.	. 30, T.	2S., R.	5E.			
THE	PROPOSAL IS APPROVED F	PROVIDED	THAT:				
1	Water with any benefic	rial use	shall b	e protect	ed fram	contaminat	tion at all times.
2	No fluid is to be prod	duced fr	on these	wells.			
3.	A list containing the	exact 1	ocation.	the surf	ace ele	vation, the	e total depth,
٠,	the bottom-hole temper	rature.	and the	date dril	led for	each well	is to be filed
	with this division wit	hin six	months:	following	cample	tion of the	e drilling program
4.		ne resto	red as n	early as	possibl	e to origin	nal condition.
5.	Division of Oil and Ga	s Class	TT A. 2	M minimum	blowou	t preventio	on equipment shall
<i>J</i> •	be installed on the su	irface c	asing pr	ior to dr	illing	out the sho	oe of the surface
	casing and maintained	ready f	or use a	t all tim	es.		
6.		ed in an	propriat	e section	s of th	e Public Re	esources Code and
٠.	the California Adminis	strative	Code ar	e submitt	ed with	in 60 days	after cessation
	of drilling operations	S. Subs	equent r	ecords su	ich as t	emperature	surveys or water
	analyses shall be sub	nitted w	ithin 30	days aft	er bein	g run.	-
7.	_			•		-	
. •	a. One day prior to			drilling	١.		
	b. Before altering t	the prop	osed pro	gram or s	uspendi	ng operation	ons. Additional
	requirement will h						
	c. To inspect the blo	owout pr	evention	equipmen	t prior	to drilli	ng out the shoe of
	the 7" casing.	- .					
cc:	Geothermal Unit, Sacr	ramento					
٠٠.	Dept. of Water Resour						
	Regional Water Qualit		nol Board	I			
	Dept. of Fish & Game		- 200 CO M	IC D (75 / * *			
	peper of Tibir & Come	-		WET	11		
		155	== C_				
		1][]	MAY 10	1935	!!		
				1000	M. G.	mefferd,	State Oil and Cas Supervis
		۷۱۲		OIL & GAS	By_	Lecheral	6600
			SACRAM	ENTO	アラ	The state of the s	Signature)

Richard E. Corbaley

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after completion, suspension, or abandonment.

PROPOSED DRILLING PROGRAM

Operator: Harding Lawson Associates
Wells: DHS-3, (INTERMEDIATE)

(D(65-90012)

29/25/5E 5B

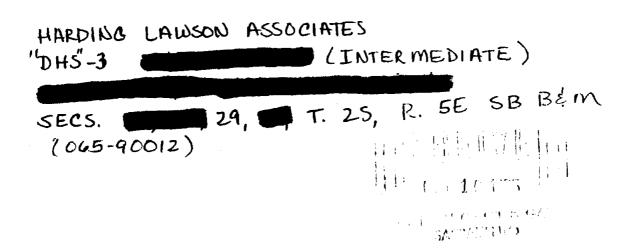
- 1. Read and comply with requirements as set forth by regulatory agencies.
- 2. Set 8-5/8-inch conductor casing.
 - a. Move in and rig up rotary tools. Post well sign and any applicable permits at rig.
 - Note spud time (hours) on Rig Log and Report Form.
 - Notify Harding Lawson Associates' geologist eight hours prior to commencement of drilling.
- 3. Spud 8-1/2-inch hole and drill to 110 feet \pm using mud as circulating medium.
 - a. Catch 20-foot samples
 - b. Monitor and record flowline temperatures each hour.
 - c. Control lost circulation with LDM; if severe, cement as required to assure competent cement job using Portland cement slurry.
- 4. Run 7-inch 23-pound ST&C casing at 110 feet + and center.
- 5. Cement in-place with Portland cement slurry.
 - a. Pump cement until slurry reaches surface through annulus.
 - b. Displace cement in casing with water.
- 6. Weld on 6-inch casing head. Install and test BOE.
 - Notify California Division of Oil and Gas in ample time to permit witnessing of BOE test.

BEM STEERS

SECTIONS. 29.

T. 25, R. 5E, SB BAM 18 18 18

- 7. Orill 6-1/4-inch hole to 1000+ feet using mud as circulating medium.
 - a. Catch 20-foot samples.
 - b. Monitor and record flowline temperatures each hour.
 - c. Control lost circulation with LCM; if severe, cement as required to assure competent cement job using Portland cement slurry.
 - d. Verify 6-1/4-inch T.D. with Harding Lawson Associates' geologist prior to completion.
 - e. Log hole (HLA).
- 8. Run 2-7/8-inch 6.5-pound J55 EUE tubing to 1000+ feet.
 - a. Run float shoe on bottom of Joint No. 1.
- 9. Cement tubing in-place using Portland cement slurry.
 - a. Pump cement until slurry reaches surface through annulus.
 - b. Install wiper plug and pump to bottom with water.
 - c. Leave tubing full of water.
- 10. Release rig.
 - a. Note release time (hours) on Rig Well Log and Daily Report.
 - b. Well history, daily flowline temperature record, and bit record are to be in the Harding Lawson Associates' office within seven days of rig release.



RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill a Geothermal Resources Well (SUBMIT IN DUPLICATE) (SUBMIT IN DUPLICATE) SACCALLISED (OFF-6

								COlor	3-76			
)perator	ina Lawson	. Accoriates		Well Design	ation //DHS	<u>'</u> 3 (T NI TI	ERME	DIA	r e)		
ield Harq	INY LAWSOF	n Associates		County			Sec.	↓ T.	R.	B.&M.		
					Riverside 29 28 5E SB							
tame (Person submitting rep Finant	k C. Kress	: A		L	ss 55 Redwood	Blvd.						
itle Ament or officer of con		, , , , , , , , , , , , , , , , , , , ,	City			itate			Zip Co			
Princ	cipal Geo	logist	Nov	ato		Cal	iforn	ia	94	948		
ignature Ta		in indemnity or cas		Date _4/		•						
ace rights, mineral	l rights, and	the location of the	proposed w	ell must accon	npany this no	tice.		iowing th	c oper	10, 3,301		
		eters North										
aid line from the	<u>Southwes</u>	t corner of section	on/property. oss out one)		or							
	(Cro	re/below sea level:).*E	÷s	no				
s the surface loca	tion or inten	ded productive inte	erval within	100 feet of pro	perty bounda	.ry? _` <u>[</u> X						
f well is to be direct	ctionally drill	ed, show proposed	coordinates	(from surface	location) at to	otal depth):					
		meters	and	d			<u></u>	meters	· Orres			
		(Directio	n)						'Unrec	tion i		
All depth measure	ments taken		Kelly Bu	ASING PI	that is		1.52	mete	ers abo	ve ground.		
SIZE OF CASING	WEIGHT (Kg)	GRADE AND TYPE	NEW OR USED	TOP OF CASING		VOLUME CEMENT	- 1	EMENTING DEPTHS		ULATED FILL IND CASING		
17.78	10.43	ST & C	Used	Surface	21.59	4.01	t	3.53 m o Surfa	ce			
7.30	14.33	J55 EUE	Used	Surface	15.88	82.39		04.8 m o Surfa	ce			
Intended zone(s)	of completic	on: Alluvium	depth. and expected	d pressure)	Estimat	ed total (depth: _	304		_ meters		
		··	RONMEN	NTAL INFO	RMATIO	N						
If a government supply the follow	al agency ha ing informati	s prepared an envii on:	onmental do	ocument, pleas	e submit a co	py of the	docum	ent with	this not	ice <i>or</i>		
		fornia Divisio										
Address:14	16 Ninth	Street, Room 1	310, Sacı	ramento, CA	95814	_ Phone:	(916	323-	2732			
Document title:						_ S.C.H, 1						
Sul	mitted in c	ompliance with So	ection 3724,	Division 3, C	hapter 4, Pul	olic Reso	urces (Code.				